Woodbrook Road Dump Superfund Site – Technical Scoping Meeting

3/3/2022



Meeting Objective and Agenda

 Objective: Review and provide consensus on the scope for the Woodbrook Road Dump Superfund Site

Agenda:

- General topics for review/discussion that inform FFS tasks
- Project Scoping and Planning
- Meeting Focus: Technical Scope of FFS Tasks
- Post-FFS Tasks

General Topics for Review/Discussion

- Potential complexities with use of previously developed foundational documents (e.g., HHRA, SLERA, RI Report, FS Report)
 - Information obtained and evaluations performed by others
 - Limited availability of electronic files
 - Enforcement related issues
- Potential complexities with use of RD information
 - Further development of post-ROD information focused on selected remedy
 - Cost estimates
- Expectations of value-added evaluations
 - E.g., Climate change and climate resiliency, additional cost estimate evaluations, post-construction quantitative risk evaluation
- Third-party expectations
 - Third parties include Town of South Plainfield, NJDEP, and PRP
 - E.g., Land use assumptions

Project Scoping and Planning

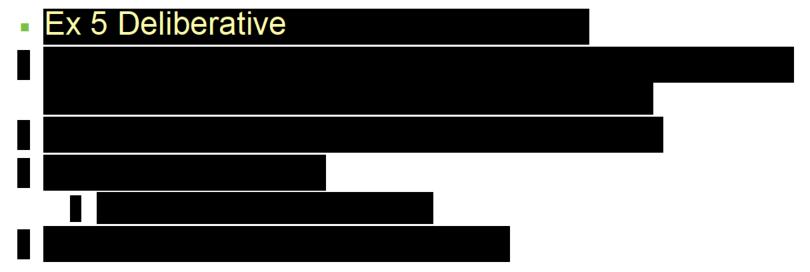
- Technical Memoranda
 - "Draft HHRA-Related Responses to OLEM Memorandum"
 - "Considerations for Use of Compliance Averaging for Remedial Action at Woodbrook Road Dump Superfund Site"
 - "Railroad and Truck Waste Transportation and Disposal Cost Comparison Update"
- Strategy Tables
 - Remedy Re-Evaluation Issues Table
 - Remedy Re-Evaluation Strategy Options Table
 - Option 3 selected FFS
- Technical Scoping Meeting

Focused Feasibility Study Tasks

- Site Background and Conceptual Site Model
 - Ex 5 Deliberative
 - ı
- Risk Assessment Summaries
 - Ex 5 Deliberative

 - Review updates to policy (e.g., lead policy)
- ARARs Identification
 - Review ARARs/TBCs identified in the ROD to update references
 - E.g., New NJ Direct Contact Soil Remediation Standards in May 2021
 - Determine whether additional ARARs/TBCs should be identified
 - Ex 5 Deliberative

- Review of Contaminants and Affected Media
 - Contaminated Media

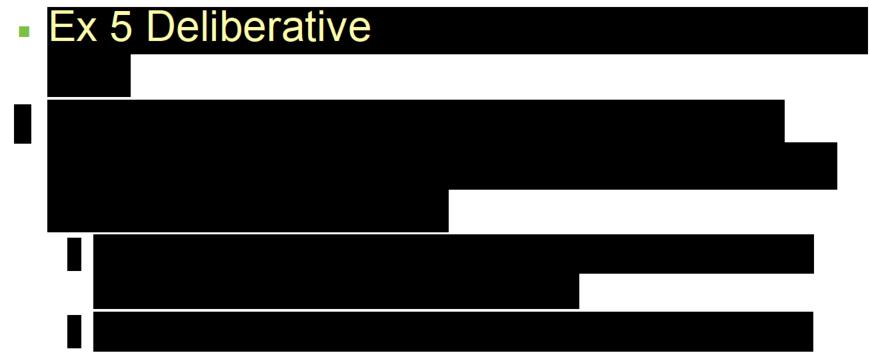


- Contaminants
 - PCBs identified as primary COC
 - Ex 5 Deliberative

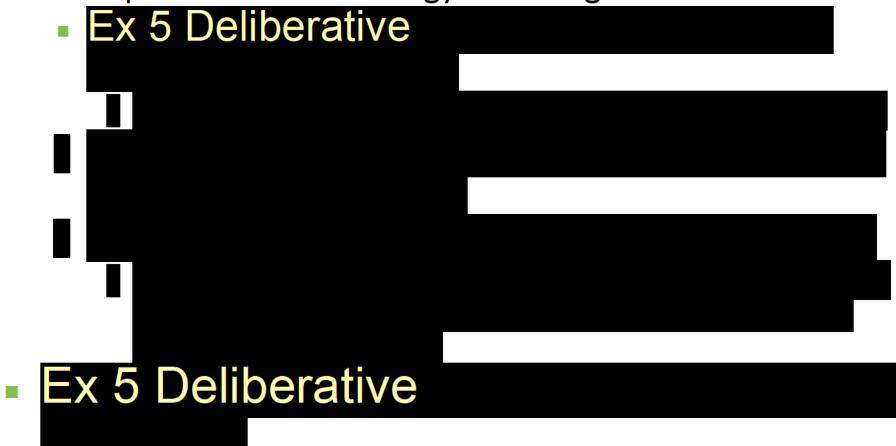
- RAOs Review
 - Ex 5 Deliberative
- PRGs Review
 - Review the development of PRGs based on risk-based values and updated ARARs
 - Ex 5 Deliberative

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- Technology Screening
 - Technology screening included in the original FS is not documented; can't verify accuracy.



- Development of Remedial Alternatives
 - Use of remedial alternatives from the original FS dependent on technology screening



- Detailed Evaluation of Remedial Alternatives
 - Evaluation of combined remedial alternatives with respect to the NCP criteria
 - Modifying criteria (state and community acceptance)
 - Individual analysis will be streamlined narrative with details in a tabulated appendix
 - Comparative analysis will be primarily narrative with a summary table

- Value-Added Evaluations for Detailed Evaluation
 - Climate change and climate resiliency evaluation
 - Ex 5 Deliberative
 - Evaluated under long-term effectiveness and permanence
 - Green and sustainable remediation
 - Ex 5 Deliberative
 - Evaluated under short-term effectiveness and long-term effectiveness and permanence
 - Cost estimates
 - FS-level of detail for cost estimates
 - Post-construction quantitative risk evaluation

- Progress Meetings to Discuss Decision Points
- Deliverables and Proposed Schedule
- Section 508 Compliance

Deliverable	Due Date	Note
Draft FFS	September 30, 2022	End of FY 2022
Draft Final FFS	TBD	
Final FFS	TBD	
Post-FFS Decision Document	December 31, 2022	End of Calendar Year 2022

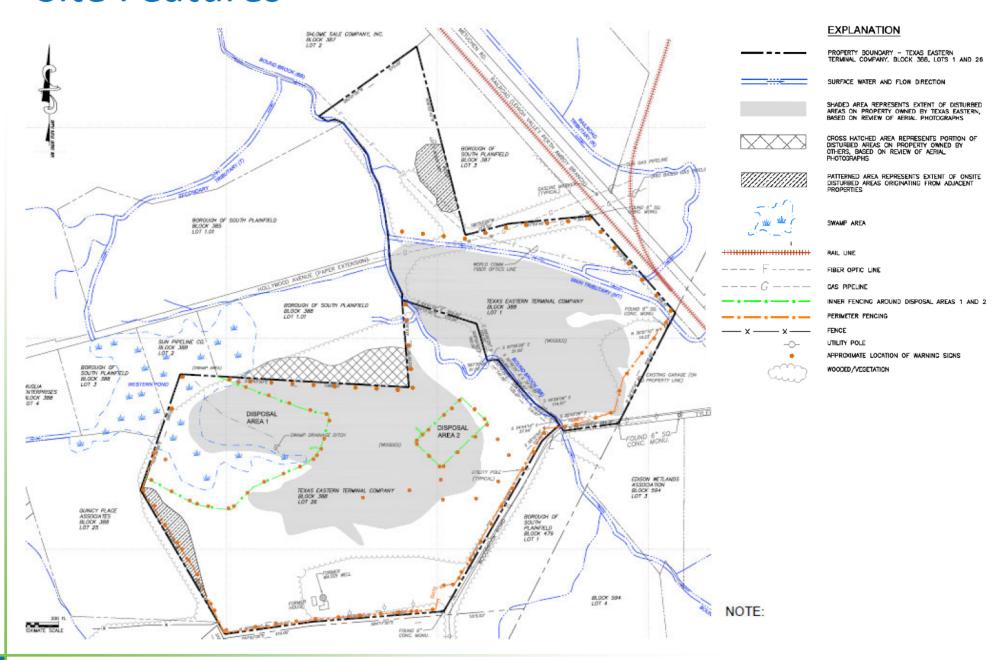
Community Involvement and Post-FFS Support

- Community Involvement (Task 3)
 - Community Involvement Plan Update
 - Public Meeting Support
 - Public notices
 - Public meeting
- Post-FFS Support (Task 5)
 - Technical support for proposed plan and responsiveness summary



Backup Information Slides

Site Features



		10 Table 10	ABLE 8 Rs and TBCs	×
TYPE OF ARAR or TBC	REGULATORY REQUIREMENT	REGULATION / CITATION	APPLICABILITY / RELEVANCE	SITE-SPECIFIC ARAR/TBC
		CHEMICAL-S	PECIFIC ARAR/TBC	
Federal	Toxic Substances Control Act (TSCA)	40 CFR 761.61	Requirements for remediation of PCB contamination; ARARs for onsite PCB removal and containment.	ARAR for PCB impacts and associated remedial activities
	Safe Drinking Water Act	40 CFR 141	Drinking water standards which apply to specific contaminants that have been determined to have an adverse impact on human health; expressed as Maximum Contaminant Levels (MCLs). [for groundwater and surface water cleanup as needed]	ARAR for Surface water, if needed
	Ambient Water Quality Criteria	Guidance Criteria	Guideline established to protect human health and/or aquatic organism; ARARs for contaminants that lack a promulgated MCL, otherwise criteria are considered TBCs. [for ground water and surface water cleanup as needed]	ARAR for contaminants lacking promulgated MCL (TBC) if needed
	RCRA Ground Water Protection Standards	40 CFR 264.94	Maximum concentrations for ground water protection at hazardous waste management facilities. Not Listed/ Not Applicable for PCBs but for other contaminants. [for ground water cleanup as needed]	ARAR for ground water cleanup, if needed.

		000	ABLE 8 Rs and TBCs	
TYPE OF ARAR or TBC	REGULATORY REQUIREMENT	SITE-SPECIFIC ARAR/TBC		
	-	CHEMICAL-S	PECIFIC ARAR/TBC	
State	Soil Remediation Standards	NJAC 7:26D	NJDEP sets standards for soil remediation based on site use	ARAR for various contaminants
	Ground Water Quality Standards	NJAC 7:9-6	NJDEP sets standards for ground water based on classes.	ARAR for various contaminants.
	Surface water Quality Standards	NJAC 7:9-B	NJDEP sets standards for surface water based on classes.	ARAR for various contaminants.
	Safe Drinking Water Act Standards	NJAC 7:10-5.2	Contains the state's discretionary changes to the federal drinking water standards.	ARAR for ground water or surface water, if needed.
	Industrial Site Recovery Act	NJSA 13:1K	Requires for soil remediation standards for human carcinogen in excess of established standards.	ARAR for establishing soil remediation criteria when more stringent than federal risk standards

		THE RESERVE AND ADDRESS OF THE PARTY OF THE	ABLE 8 TBCs - Continued		
TYPE OF ARAR or TBC	REGULATORY REQUIREMENT	REGULATION / CITATION	APPLICABILITY / RELEVANCE	SITE-SPECIFIC ARAR/TBC	
19452 BUT		LOCATION-S	PECIFIC ARAR/TBC	No.	
Federal	Wetlands Protection	Executive Order 11990	Requires consideration of impacts to wetlands in order to minimize any destruction, loss, or degradation and to preserve their values.	ARAR for impacts/remedial action in wetlands areas and buffer zones.	
	Clean Water Act, Section 404(b)(1) Guidelines [regards to wetlands]	40 CFR 230.10	Guidelines established criteria for evaluating impacts to waters of the US (including wetlands) and sets forth factors for considering mitigation measures.	ARAR for impacts/remedial action in wetlands areas and buffer zones and stream	
	Floodplain Protection	Executive Order 11988	Requires consideration of impacts to floodplain areas in order to minimize any flood impacts on human health, safety and welfare, reduce flood loss risks, and to preserve/ restore their values.	ARAR for impacts/remedial action in floodplain areas.	
	Code of Federal Regulations- Location Standards [regards to floodplains]	40 CFR 264.18	Regulates the design, construction, operation, and maintenance of hazardous waste management facilities within the 100-year floodplain.	ARAR for impacts/remedial action in floodplain areas.	
	Cultural Resources	National Historic Preservation Act of 1996 (amended Section 106) 36 CFR 800	Section 106 requires each Federal agency to do two things prior to carrying out, approving financial assistance to, or issuing a permit for a project that may affect properties listed or eligible for listing in the National Register of Historic Places. First, the agency must consider the impact of the project on historic properties. Second, the agency must seek the Council's comments on the project.	ARAR for effect on cultural resources (if present).	

TANKS AND SOLD FROM LT.		300000000000000000000000000000000000000	ABLE 8 TBCs - Continued					
TYPE OF ARAR or TBC	ARAR OF REQUIREMENT CITATION RELEVANCE							
State	Wetlands Protection	LOCATION-S NJAC 7:7A	PECIFIC ARAR/TBC Regulates the disturbance or alteration of freshwater wetlands and their respective buffer.	ARAR for impacts/remedial action in wetlands areas and buffer zones.				
	Freshwater Wetlands Protection Act	N.J.S.A. 13:9B-1 et seq.	Related to Freshwater wetlands permit, procedures, and exemption to engage or work in wetland areas.	ARAR for impacts/remedial action in wetlands areas and buffer zones.				
	Floodplain/Flood Hazard Area Protection	NJAC 7:13	Regulates the disturbance, the placement of fill, grading, excavation, or other disturbance within the defined flood hazard area/ floodplain of rivers/streams.	ARAR for impacts/remedial action in floodplain areas.				

			BLE 8 BCs - Continued		
TYPE OF ARAR or TBC	REGULATORY REQUIREMENT	REGULATION / CITATION	APPLICABILITY / RELEVANCE	SITE-SPECIFIC ARAR/TBC	
111111111111		ACTION-SPEC	IFIC ARAR/TBC	**	
Federal	Toxic Substances Control Act (TSCA)	40 CFR 761.61	Handling, storage, disposal of PCB wastes.	ARAR for management of PCB wastes (on-site and during off-site disposal).	
	Resource Conservation and Recovery Act (RCRA)	40 CFR 262, 263, 264, 265.	Hazardous waste handling, storage, disposal.	ARAR for off-site disposal of hazardous wastes; for on-site treatment and storage activities.	
	USDOT Hazardous Material Transportation Regulations	49 CFR 171-180	Classification, packaging and labeling requirements for shipments of hazardous	ARAR for preparation of hazardous materials generated on-site for off- site shipment.	
	Clean Air Act	40 CFR 50	Particulate and fugitive dust emission requirements.	ARAR for on-site activities with potential to generate particulate and/or fugitive dust emissions.	
	Clean Water Act	40 CFR 122, 401	Requirements for point source discharges and storm water discharges from industrial activities.	TBD if needed.	
	USEPA Test Methods		Analytical requirements for laboratory analyses.	TBC for analyses of environmental samples.	

		200 CO	BLE 8 BCs - Continued		
TYPE OF ARAR or TBC	REGULATORY REQUIREMENT	REGULATION / CITATION	APPLICABILITY / RELEVANCE	SITE-SPECIFIC ARAR/TBC	
		ACTION-SPEC	IFIC ARAR/TBC		
State	Site Remediation Reform Act (SRRA)	NJSA 58:10C-1 et seq.	Requirements for remediation of contaminated sites. Specifies rules,	ARARs for investigation/ delineation of site impacts.	
	Administrative NJAC 7:26C Requirements for the Remediation of Contaminated Sites (ARRCS)		standards, and guidance for all aspects of remedial activities through case closure.	development of remedial action plans, implementation of remedial action plans, fee etc	
	Technical Requirements for Site Remediation (TRSR)	NJAC 7:26E		(0.76.69)	
	Soil Erosion and Sediment Control	NJSA 4:24	Requirements for controlling erosion during land disturbances over 5000 sf.	ARAR for applicable activities (e.g., excavation).	
	NJ Pollutant Discharge Elimination System (NJPDES)	NJAC 7:14A	Requirements for water discharge to surface water, ground water and POTWs.	ARAR for discharge of waste waters associated with remedial activities.	
	Air Quality	NJAC 7:27	Requirements for air pollution sources.	ARAR for emission of air pollution during remedial activities.	
	Treatment Works Approvals	NJAC 7:14A-22	Requirements for design and construction of wastewater treatment systems.	ARAR for on-site wastewater treatment associated with remedial activities.	
	Hazardous Waste	NJAC 7:26G	Requirements for management and transportation of hazardous wastes.	ARAR for off-site disposal of hazardous wastes; for on-site treatment and storage activities.	

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RAOs in ROD

Based on the site-specific human health and ecological risk assessment results, PCBs in soil and debris pose an unacceptable risk. Therefore, the following RAOs address the human health and ecological risks posed by PCB-contaminated soil and debris at the Site:

- Reduce or eliminate the direct-contact threat associated with contaminated soil and debris to levels protective of current and potential future land uses. The most conservative land use anticipated for the Site would be a future recreational user/trespasser.
- Reduce or eliminate exposures through biological uptake of contaminated soil and debris, and contaminated food items to environmental receptors.
- Prevent or minimize contact by humans and environmental receptors to PCB-contaminated capacitors and capacitor parts as well as PCB-contaminated soil and debris identified as principal threats at the Site.
- Prevent contaminant migration to currently unaffected areas or to sediments and surface water.

PTW Definition in ROD

In developing remediation goals for the Western and Eastern Dumps, the EPA found that the high levels of PCBs were only found near capacitors and, therefore, identified the capacitors and neighboring soils/debris as "principal threat wastes". EPA "Guidance on Remedial Actions for Superfund Sites with PCB Contamination, 1990" (EPA PCB Guidance) identifies two different thresholds for PCBs as principal threat waste, 500 ppm for industrial land and 100 ppm for residential land uses. EPA has elected to use 100 ppm, concluding that the land is not expected to be developed as industrial land. The Site will likely be open space/wetlands, infrequently visited and not subject to routine monitoring.

ROD Discussion of Groundwater

Although ingestion of on-site groundwater shows an unacceptable future risk (greater than the acceptable 1 x 10⁻⁴ to 1 x 10⁻⁶ cancer risk range and the non-cancer threshold of 1) due to naturally occurring metals (chromium as chromium VI, iron and manganese), there is no current or plausible future exposure to Site groundwater. The Site is zoned M-3 Industrial, which does not allow for residential use and, as cited earlier, other plausible future land uses would not include residential.

The RI found exceedances of MCLs in groundwater monitoring wells, though not in any nearby potable wells. There is not a pattern to the exceedances suggesting a groundwater plume, and the detected constituents are not otherwise identified as Site contaminants in the soil or debris. In addition, the wells with detections were installed in shallow water-bearing sections of the aquifer that, while technically part of the drinking water aquifer, would not be a viable source of potable water. The Agency has concluded that no further actions are required for the groundwater, though post-remedial action groundwater monitoring is warranted as a precaution.

PRG Definition in ROD

The human health risk assessment identified an unacceptable risk to exposure to illegal Site trespassers, utility workers, current and future off-site residents and future recreational hikers at the Western dump, and a back-calculation of the 1 x10⁻⁶ exposure reveals a PRG of 1.1 ppm total PCBs. There was no unacceptable human health risk at the Eastern Dump; however, an ecological risk value of 1.43 ppm total PCBs was calculated for the eastern dump. These values are sufficiently similar and sufficiently close to EPA's 1.0 ppm remedial goal for PCBs on residential properties (from the EPA PCB guidance) that the Region plans to use 1.0 ppm as its remediation goal.

NJDEP has promulgated residential and commercial direct-contact remediation standards for a list of chemicals, including PCBs (0.2 ppm for residential and 1.0 ppm for non-residential). There are a number of detections throughout the dumps that exceed these standards, for PCBs, and a number of other constituents, exceed the NJDEP residential direct-contact soil cleanup criteria (RDCSCC) that are otherwise not meaningful contributors to the risk posed by the Site. The selected remedy will implement institutional controls to prevent development of these properties for unrestricted (residential) use. The human health risk assessment concluded that, but for the PCBs, the types of passive exposures that would occur on these properties in future would not pose an unacceptable risk. Given the expected future use for this Site, unrestricted use would not be anticipated. New Jersey's promulgated standard will require that, at a minimum, land use would need to be controlled to prevent unrestricted use. The expected future land use is neither an unrestricted (residential) or commercial/industrial exposure scenarios. EPA has concluded that a 1.0 ppm level would be adequately protective for the expected future land uses for ecological receptors and for human exposures.

Eco PRGs Defined in SLERA

Sediment COPEC	Mean UCL	Mean Surface Soil Concentration (mg/kg) ¹	Mean Background Concentration (mg/kg) ²	Wildlife PRGs (mg/kg) ³				
	Surface Soil Concentration (mg/kg) 1			Mourning Dove	White- Footed Mouse	American Robin	Short- Tailed Shrew	Red Fox
Eastern Dumping Are	a		8				2 3	
HWM PAHs	32.1	13.5	2.66	NA	NA	12.5	6.55	NA
PCBs Aroclors	19				Y	•		
Aroclor 1248	9.43	0.99	ND	NA	NA	1.98	1.43	NA
Aroclor 1254	1.17	0.61	ND	NA	NA	NA	1.43	NA
Aroclor 1260	1.52	0.24	0.038	NA	NA	NA	1.43	NA
PCB/Dioxin/Furan Cor	igeners						0.010	
Total PCBs	9.39	1.55	0.047	NA	NA	0.41	1.75	NA
Inorganics	C. W. Halland	7.22	to tonon -	3000	w 2017/20	75 00.7	V 12-102-0	2 1920
Cadmium	131	18.1	1.24	NA	NA	6.81	4.58	NA
Copper	433	263	28.8	NA	NA	196	NA	NA
Lead	1801	1070	62.0	590	NA	206	710	NA
Selenium	11.7	4.23	1.52	7.45	NA	NA	5.31	NA
Western Dumping Ar Pesticides	j9 s				0			
Total DDT	62.7	6.45	0.0089	NA	NA	7.78	6.46	NA
Aldrin	400	25.0	ND	35.2	137	0.63	0.43	NA
Dieldrin	0.046	0.024	0.0023	NA	NA	NA	0.03	NA
Endrin	0.47	0.061	ND	NA	NA	0.14	0.07	NA
Heptachlor Epoxide	1.17	0.12	0.0017	NA	NA	NA	0.63	NA
PCBs Aroclors	CCC BOOKERS	7. (100.00)		2 20000 5	w 50,777,50 °	5 111100 5	7	2 1986
Aroclor 1242	862	94.0	ND	62.4	202	2.20	1.43	236
Aroclor 1248	2091	530	ND	54.3	202	1.98	1.43	236
Aroclor 1254	53652	5300	ND	57.0	209	1.98	1.43	236
Aroclor 1260	39.4	23.0	0.038	NA	NA	1.98	1.43	NA
PCB/Dioxin/Furan Con	ngeners		8					
Total PCBs	53392	5800	0.047	77.0	892	0.41	1.75	2210
Inorganics	(3)		31 8		<u> </u>	8		<u> </u>
Cadmium	39.2	20.0	1.24	NA	NA	6.81	4.58	NA
	775	440	28.8	NA	NA	196	458	NA
Copper	113							
Copper Lead Mercury	2242	1400	62.0	590	NA	206	710	NA

Technology Screening in Original FS

The GRAs have been screened and developed in this Draft Final FS to determine which would best achieve the RAOs. The technology types/process options that were retained for Alternative development include:

- No action
- Institutional controls
 - Use restrictions (deed notice)
 - Notifications (inform local officials, have public meetings, post signs)
- Engineering controls (fencing)
- Capping/containment/engineering controls
 - Capping (with consolidation)
- Excavation/mechanical removal
- In-situ and ex-situ treatment (physical, chemical, thermal, biological)
 - Separation (PCB articles only)
 - Chemical dehalogenation
 - Thermal desorption
 - Incineration
 - Ex-situ enhanced biodegradation and phytoremediation (reserved for future consideration as potential supplemental alternative to address residual impacts remaining after primary treatment)
- Disposal
 - On-Site reuse
 - Off-Site

Remedial Alternatives in ROD

- Alternative 1: No Action
- Alternative 2: On-Site Treatment of Principal Threat Waste with Consolidation and Capping of Residual Soil
- Alternative 3: On-Site Treatment
- Alternative 4: Excavation/Off-site Disposal of Principal Threat
 Waste with Consolidation and Capping of Residual Soil
- Alternative 5: Excavation/Off-site Disposal of Principal Threat Waste, Consolidation/Capping of Western Dump, Spot Excavation/Monitoring of Eastern Dump
- Alternative 6: Excavation and Off-site Disposal

Remedial Alternatives in Original FS

- Western Dump PCB Hot Spots Remedial Alternatives
 - Alternative 1a: No Action
 - Alternative 1b: Limited Action
 - Alternative 1c: Consolidation, Capping, Fencing, and ICs
 - Alternative 1d: On-Site Treatment
 - Alternative 1e: Excavation/Off-Site Disposal
- Western Dump Non-Hot Spot Remedial Alternatives
 - Alternative 2a: No Action
 - Alternative 2b: Limited Action
 - Alternative 2c: Consolidation, Capping, and ICs
 - Alternative 2d: On-Site Treatment
 - Alternative 2e: Excavation/Off-site Disposal

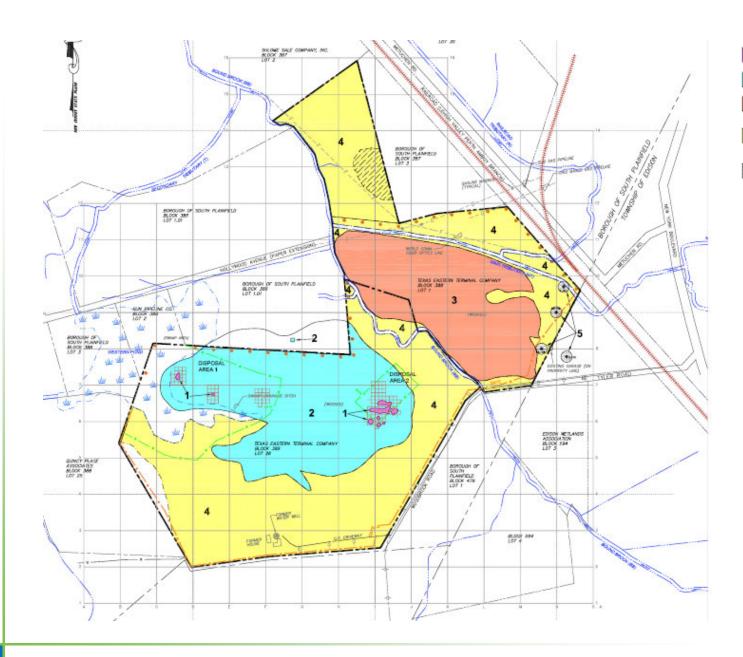
Remedial Alternatives in Original FS

- Eastern Dump –Remedial Alternatives
 - Alternative 3a: No Action
 - Alternative 3b: Fencing and ICs
 - Alternative 3c: Capping and ICs
 - Alternative 3d: On-Site Treatment
 - Alternative 3e: Excavation/Off-Site Disposal or Disposal Under the Western Dump Cap

Remedial Alternatives in Original FS

Proposed Plan Alternative	Table 9 FS Feasibility Study Designation		Western Dump: Principal Threat Hot Spots	Western Dump: Residual Soil and Debris	Eastern Dump: Residual Soil and Debris
1	a	No Action	X	X	X
	b	Monitoring/ICs			
	c	Capping/Consolidation			
	d	On-site Treatment			
1520	e	Excavation/Off-site Disposal			
2	a	No Action		4	
	b	Monitoring/ICs			
	c	Capping/Consolidation		X	X
	d	On-site Treatment	X		
	е	Excavation/Off-site Disposal			
3	a	No Action			
	b	Monitoring/ICs			8
	C	Capping/Consolidation			
	d	On-site Treatment	X	X	X
	е	Excavation/Off-site Disposal			
4	a	No Action			
	b	Monitoring/ICs			
	c	Capping/Consolidation		X	X
	d	On-site Treatment			3
	е	Excavation/Off-site Disposal	X		
5	a	No Action			5
	b	Monitoring/ICs			X
	C	Capping/Consolidation		X	
	d	On-site Treatment			
	е	Excavation/Off-site Disposal	X		
6	a	No Action			
	b	Monitoring/ICs			
	C	Capping/Consolidation			
	d	On-site Treatment			
	e	Excavation/Off-site Disposal	X	X	X

Map of Exposure Areas (RI)



EXPOSURE AREAS

PGS AFFICIE DISPOSAL AREA
PGS "HOT SPOTS" — SOIL WITH PGS CONCENTRATION OFERITER
THAN 1,000 ppm (MAY OR MAY NOT CONTAIN PGS ARTICLES)

2 WESTERN CHAPPING AREA ON-STE AND DIFF-STE - GENERAL RETUSE (SOL SAMPLING RIGHE I AND IL EXCLUDING THE >1,000 ppm TOTAL FOR THOS SPORTS?

3 CASTERN DUMPING AREA (BLOCK 388, LGT 1 AND PORTION OF LGF 28) SENERAL REFLEX.

PASHADELE SUPPOM, DIAMPINE AREA (MORTHERM PORTION OF BLOCK 388, LOT 1); SCATTERED GLASS SIGNIES AND BEFFER 20ME [PLOCK 388, LOT 1]; AND 26 — BELULING SURFACE SOIL SHAPLIS SO-NO, 38-NO, 38-NO AND 38-NO, APPROXIMATE AREA OF SCATTERED CLASS PETURE IS SHAPED.

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Exposure Areas with Excavation Boundaries (RD)

